

**REMARKS/ARGUMENTS**

Claims 1-14 are pending. Claims 1-5 and 8-14 are resubmitted. Claims 1-2, 4-5, 8-12, and 14 are amended. Claims 6-7 are canceled without prejudice or disclaimer of the subject matter. No new claims have been added.

Claims 1-7 have been objected to because of certain informalities. Claims 2, 7, 8, and 9 have been objected to because of typo error. Claims 1-14 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Kingston (US 4,808,939) issued February 28, 1989.

**Examiner Interview**

A telephone interview was conducted on July 22, 2004, between the Examiner and Applicant's representative. A proposed amendment and the reference U.S. Patent No. 4,808,939 (Kingston) cited by the Examiner were discussed. The Examiner indicated that the amendment appears to overcome the prior art and that the application may be in condition for allowance pending an updated prior art search.

**Drawings**

The drawings have been objected to as not showing the claimed features for "a circuit for generating a binary-level waveform", and "a circuit for providing a chopping signal for a square type waveform". The drawings have been amended by changing Figure 3 to more clearly show the correspondence between chopping circuit 14 and chopping signal 18 (shown in Figure 1) with reference numbers for chopping circuit 14 and chopping signal 18 added to Figure 3. Because chopping circuit 14 and chopping signal 18 were already present in Figure 3 and are now only more clearly indicated by providing

reference numbers for chopping circuit 14 and chopping signal 18 and a dashed outline for chopping circuit 14, Applicants respectfully submit that no new matter has been added. Applicants submit that features not shown in the drawings nor supported by the specification have been canceled from the claims.

Thus, it is believed that the objections to the drawings should be withdrawn.

#### Claim Objections

Claim 1 has been amended at line 4, changing “a circuit” to a “pulse-shaping circuit” as supported, for example, by the specification at paragraph [0020] and by Figure 2. Claim 1 has been amended at line 6, changing “a circuit” to a “chopping circuit” as supported, for example, by the specification at paragraph [0014] and by Figure 1, and providing antecedent basis for “said chopping circuit” in dependent claims 2-7.

Claim 7 has been canceled and claims 2, 8, and 9 have been amended to delete the double period following the claim number, thus correcting the typo errors.

Therefore, it is believed that the objections to claims 1-7 and claims 2, 7, 8, and 9 should be withdrawn.

#### Kingston

Claims 1, 4, 8, 12, and 14 have been amended. Support for the amendments to claims 1, 8, 12, and 14 may be found in the specification, for example, at paragraphs [0015], [0017], [0018], [0019], and [0020]. Additional support for the amendments to claims 5 and 11 may be found, for example, in

Figure 2.

The rectangular matched filter (Fig. 2) disclosed by Kingston both is significantly different in structure and purpose from and teaches away from the attenuation circuit of the present invention as claimed by claims 1, 8, 12, and 14 (as amended). For example, a stated purpose of Kingston's matched filter (and, in fact, of practically any prior art filter) is to increase the signal-to-noise ratio of its input signal (see, e.g., col. 1, lines 15-20 and col. 2, lines 51-58). In contrast, the present invention as claimed by claims 1, 8, 12, and 14 (as amended) operates to degrade its input signal (original binary-level waveform 16) by reducing the energy content of the signal and transmitting the signal at a lower signal-to-noise ratio, i.e., to decrease the signal-to-noise ratio of its input signal. Thus, because the filter of Kingston is opposite in purpose and produces an opposite effect on its input signal (analog waveform input 11) from that produced by the present invention as claimed on its input (original binary-level waveform 16) Kingston neither anticipates nor even suggests the present invention.

Furthermore, where the output of Kingston's filter extracts usable data 19 (Fig. 2) from its input signal 11, the attenuation circuit as claimed by the present invention produces at its output a degraded, attenuated chopped signal 20 having less energy content than its input signal binary-level waveform 16 and that will be transmitted at decreased signal-to-noise ratio so that data of binary-level waveform 16 is not only not extracted but rather is deliberately obscured in order to test the robustness of a communication link that includes transmitter 12. Also, for example, claim 4 (as amended) claims a higher bit error rate for the output signal (attenuated chopped signal 20) produced by the attenuation circuit. Thus because Kingston's circuit produces a totally different output in relationship to its input than the output produced by the present claimed attenuation circuit in relationship to its input, and because, in fact, the two

relationships are contrary to one another, the circuits are manifestly completely different, and therefore, Kingston cannot anticipate the present invention as claimed, for example, by claims 1, 8, 12, and 14.

Additionally, Kingston does not explicitly disclose a transmitter, however, the input data on line 11 being phase shift keyed (e.g., col. 2, lines 61-62) indicates that any transmitter in Kingston's link would operate before the input on line 11 rather after the output on line 19 as required to be analogous to the present invention claimed by claims 1, 8, 12, and 14. Furthermore, Kingston discloses output 19 being connected to "utilization devices" such as binary decision block 34 (col. 2, lines 3-6, col. 3, lines 10-11) which arguably excludes a transmitter - such as the transmitter as claimed being fed the output of the chopping circuit - since transmitters merely transmit signals but do not utilize them, utilization commonly meaning an end use, such as would occur at the receiving end of a link. It is, thus, evident that Kingston's circuit is for part of a receiving portion of a link rather than for part of a transmitting portion of a link as in the present invention as claimed by claims 1, 8, 12, and 14. Thus, Kingston does not either anticipate or make obvious the transmitter 12 of the present invention as claimed.


Moreover, Kingston's symbol tracking loop 35 does not provide a clock signal for a chopping signal on line 36. The clock signal on line 36 is used to synchronize sampling of the input signal with each symbol of the input signal so that A/D converter 26 and multiplier 29 operate on more faithfully on the data in the input signal on line 11 (col. 3, lines 1-20). By way of contrast, the present invention, for example, as claimed by claims 5 and 11, delays the clock signal to be out of synchronization with the symbols, i.e., bits, of the binary level waveform 22, as shown in Figure 2, the delayed clock signal 24 being the chopping signal waveform 24 of Figure 2 (chopping signal 18 of Figures 1 and 3). Thus, Kingston's clock signal at line 36 is contrary in structure and function

In light of the above, it is believed that claims 1-5 and 8-14 are now in condition for allowance.

Applicant would like to thank the Examiner for the telephone interview of July 22, 2004. In such interview the Examiner discussed a proposed amendment to the claims and indicated that the application may be in condition for allowance pending an updated prior art search.

In the event the examiner wishes to discuss any aspect of this response, please contact the attorney at the telephone number identified below.

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